

List of Publications

DØ Run II:

Journal Publications:

*Observation and Properties of the X(3872) Decaying to J/psi pi+pi- in ppbar Collisions at sqrt(s)=1.96 TeV, DØ collaboration (V Abazov et al.), Phys. Rev. Letters **93**, 162002 (2004).*

*Search for Doubly Charged Higgs Boson Pair Production in the Decay to mu+mu+mu-mu- in ppbar Collisions at sqrt(s)= 1.96 TeV, DØ collaboration (V Abazov et al.), Phys. Rev. Lett. **93**, 141801 (2004).*

Conference Proceedings:

The DØ Run II Trigger System, DØ collaboration (R. Schwienhorst, for the collaboration), proceedings for the Meeting of the Division of Particles and Fields of the American Physical Society, (2004).

Search for Single Top Production at the Tevatron, DØ and CDF collaborations (R. Schwienhorst, for the collaborations), proceedings for the 5th Rencontres du Vietnam, DØ note 4631 (2004).

Top Quark Production Cross Section at ECM=1.96TeV, DØ and CDF collaborations (R. Schwienhorst, for the collaborations), proceedings for the 5th Rencontres du Vietnam, DØ note 4632 (2004).

Search for Electroweak Single Top Quark Production at the Tevatron, CDF and DØ collaborations (B. Stelzer, for the collaborations), Talk given at the 15th Topical Conference on Hadron Collider Physics (2004).

Search for Single Top Quark Production and Measurements of Top quark Decay Properties at the Tevatron, CDF and DØ collaborations (A. Juste, for the collaborations), proceedings for the Rencontres du Moriond, Fermilab-Conf-04-084E (2004).

*Update of the Measurement of the t anti-t cross section as S**(1/2)=1.96 TeV, DØ collaboration (V Abazov et al.), Fermilab-Conf-03-248-E, (2003).*

Measurement of the t anti-t cross section at square-root s=1.96 TeV, DØ collaboration (V Abazov et al.), Fermilab-Conf-03-200-E (2003).

DONUT:

Detection and Analysis of Tau Neutrino Interactions in Donut Emulsion Target, K. Kodama *et al.* (DONUT Collaboration), published in Nucl. Instrum. Meth. A **493**: 45-66 (2002).

A New Upper Limit for the Tau-Neutrino Magnetic Moment, R. Schwienhorst *et al.* (DONUT Collaboration), published in Phys. Lett. B **513**: 23-29 (2001).

Observation of tau neutrino interactions, K. Kodama *et al.* (DONUT Collaboration), published in Phys. Lett. B **504**: 218-224 (2001).

A New Upper Limit for the Tau-Neutrino Magnetic Moment, R. Schwienhorst, Ph.D. thesis, University of Minnesota, FERMILAB-THESIS-2000-14 (2000).

MINOS:

A large liquid scintillator detector for a long baseline neutrino oscillation experiment, P. Border, P. Cushman, K. Heller, D. Maxam, J.K. Nelson, K. Ruddick, R. Rusack, R. Schwienhorst, T. Berg, T. Chase, M. Hansen, C. Bower, R. Hatcher, R. Heinz, L. Miller, S. Mufson (Minnesota U. & Indiana U.), published in Nucl. Instrum. Meth. A **463**: 194-204 (2001).

A comprehensive characterization of Hamamatsu 16- and 64-anode PMTs, K. Lang *et al.*, published in Nucl. Instrum. Meth. A **461**: 571-573 (2001).

Results from an Iron Proportional Tube Calorimeter Prototype, P. Schoessow, I. Ambats, D.S. Ayres, J.W. Dawson, W.N. Haberichter, N. Hill, R.L. Talaga, J.L. Thron (Argonne), Yu. Gornushkin, A. Sadovsky (Dubna, JINR), J.L. Miller (Indiana U.), R. Schwienhorst (Minnesota U.), H. Gallagher (Oxford U.), C. Arroyo (SLAC), W.A. Mann (Tufts U.), W.L. Barrett (Western Washington U.), Talk given at 7th International Conference on Calorimetry in High-Energy Physics (ICCHEP 97), Tucson, AZ, 9-14 Nov 1997.
In *Tucson 1997, Calorimetry in high energy physics* 319-326, SLAC-REPRINT-1997-070, ANL-HEP-CP-98-02, NUMI-L-335 (1997).

Theoretical Atomic Physics:

Electron-photon coincidences in electron impact ionization-excitation, R Schwienhorst *et al.*, J. Phys. B: At. Mol. Opt. Phys. **29** (1996).

Double differential cross sections in electron impact ionization of Helium, R Schwienhorst *et al.*, J. Phys. B.: At. Mol. Opt. Phys. **28** (1995).

Publications that have been submitted

Several publications from the DØ experiment in Run II at the Tevatron have been submitted but have not been accepted yet. Similarly, the phenomenological paper I have contributed to has also been submitted for publication but has not yet been accepted.

Particle Physics Phenomenology:

Next-to-Leading Order Corrections to Single Top Quark Production and Decay at Tevatron: 1. s-channel Process, Qing-Hong Cao, Reinhard Schwienhorst, C.-P. Yuan, submitted to Phys. Rev. D, hep-ph/0409040 (2004).

DØ Run II:

A Measurement of the Ratio of Inclusive Cross Sections pp->Z+b-jet/pp->Z+jet at sqrt(s) = 1.96-TeV, DØ collaboration (V Abazov et al.), submitted to Phys. Rev. Lett., hep-ex/0410078, Fermilab-Pub-04/297-E (2004).

*Measurement of the WW production cross section in p anti-p collisions at s**(1/2) = 1.96 TeV,* DØ collaboration (V Abazov et al.), submitted to Phys. Rev. Lett., hep-ex/0410066, Fermilab-Pub-04/293-E (2004).

A search for Wbb and WH production in ppbar collisions at sqrt(s)=1.96 TeV, DØ collaboration (V Abazov et al.), submitted to Phys. Rev. Lett., hep-ex/0410062, Fermilab-Pub-04/288-E (2004).

Measurement of the Lambda_b lifetime in the decay Lambda_b to J/psi Lambda with the D0 detector, DØ collaboration (V Abazov et al.), submitted to Phys. Rev. Lett., hep-ex/0410054, Fermilab-Pub-04/286-E (2004).

Measurement of the ratio of B+ and B0 meson lifetimes, DØ collaboration (V Abazov et al.), submitted to Phys. Rev. Lett., hep-ex/0410052, Fermilab-Pub-04/284-E (2004).

Measurement of the B_s^0 Lifetime in the Exclusive Decay Channel B_s^0->J/psi phi, DØ collaboration (V Abazov et al.), submitted to Phys. Rev. Lett., hep-ex/0409043, Fermilab-Pub-04/225-E (2004).

Measurement of Dijet Azimuthal Decorrelations at Central Rapidities in pbbar Collisions at sqrt(s)=1.96 TeV, DØ collaboration (V Abazov et al.), submitted to Phys. Rev. Lett., hep-ex/0409040, Fermilab-Pub-04/217-E (2004).

A search for flavor-changing neutral current decay Bs->mm in ppbar collisions at sqrt(s) =1.96 TeV, DØ collaboration (V Abazov et al.), submitted to Phys. Rev. Lett., hep-ex/0410039, Fermilab-Pub-04/215-E (2004).

Search for Supersymmetry with Gauge-Mediated Breaking in Diphoton Events at Dzero, DØ collaboration (V Abazov et al.), submitted to Phys. Rev. Lett., hep-ex/0408146, Fermilab-Pub-04/198-E (2004).

Unpublished Documents and Internal Notes

DØ Notes:

Tools of Trigger Meistery, E. Gallas, R. Schwienhorst, T. Toole, DØ note 4628.

The ONETOP Matrix Element Generator at DZero, R. Schwienhorst, DØ note 4620.

Magic Bus Arbitration Revealed, R. Kwarciany, R. Schwienhorst, D. Baden, J. Linnemann, B. Hirosky, DØ note 4612.

The D-Zero Level 2 Magic Bus, D. Baden, B. Hirosky, R. Schwienhorst, DØ note 4611.

Uncertainty Calculation for Combined W+jets and QCD Backgrounds in Analyses with W+jets Signatures, R. Schwienhorst and E. Perez, DØ note 4597.

Top Trigger Efficiency Measurements and the top_trigger package, M. Angelou, S. Anderson, B. Andrieu, S. Banerjee, F. Blekman, E. Busato, L. Christofek, B. Clement, C. Clement, T. Golling, S. Jabeen, S. Jain, A. Juste, J. Kozminski, J. Leveque, P. Mal, E. Perez, A. Quadt, R. Schwienhorst, J. Stark, B. Vachon, G. Watts, DØ note 4512.

Search for Single Top Quark Production at DZero in Run II, M. Agelou, B. Andrieu, P. Baringer, A. Bean, D. Bloch, E. Boos, V. Bunichev, E. Busato, L. Christofek, B. Clement, L. Dudko, T. Gadfort, A. Garcia-Bellido, G. Gaudio, D. Gele, P. Gutierrez, A. Heinson, S. Jabeen, S. Jain, A. Juste, D. Kau, M. Kopal, J. Mitrevski, J. Parsons, P. Perea, E. Perez, H. Prosper, A. Quadt, V. Rud, R. Schwienhorst, M. Strauss, B. Vachon, M. Warsinsky, G. Watts, DØ note 4510.

Top Trigger Selection and Application of Turn On Curves to the Monte Carlo, R. Schwienhorst, DØ note 4508.

D0 Top Analyses and Data Sample for the Winter Conference 2004, Top Physics Working Group, DØ note 4419.

Search for Single Top Quark Production at DZero in Run II, M. Agelou, B. Andrieu, P. Baringer, A. Bean, D. Bloch, E. Boos, V. Bunichev, E. Busato, L. Christofek, B. Clement, L. Dudko, T. Gadfort, A. Garcia-Bellido, G. Gaudio, D. Gele, P. Gutierrez, A. Heinson, S. Jabeen, S. Jain, A. Juste, D. Kau, M. Kopal, J. Mitrevski, J. Parsons, P. Perea, E. Perez, H. Prosper, A. Quadt, V. Rud, R. Schwienhorst, M. Strauss, B. Vachon, M. Warsinsky, G. Watts, DØ note 4398.

Supplement to D0note 4116 on the measurement of the ttbar cross section at sqrt(s)=1.96 TeV, Anderson, Barberis, Bassler, Beaudette, Bernardi, Cho, Clement, Demina, Fiedler, Gerber, Golling, Grivaz, Groer, Han, Heinson, Iashvili, Juste, Li, Kado, Kehoe, Khanov, Klute, Kozminski, Quadt, Quinn, Mal, O'Neil, Parua, Perea, Phaf, Rizatdinova, Schwartzman, Schwienhorst, Shabalina, Strandberg, Whiteson, Zielinski, Zitoun, DØ note 4178.

Measurement of the ttbar cross section at sqrt(s)=1.96 TeV, Anderson, Barberis, Bassler, Beaudette, Bernardi, Cho, Clement, Demina, Fiedler, Gerber, Golling, Grivaz, Groer, Han, Heinson, Iashvili, Juste, Li, Kado, Kehoe, Khanov, Klute, Kozminski, Quadt, Quinn, Mal,

O'Neil, Parua, Perea, Phaf, Rizatdinova, Schwartzman, Schwienhorst, Shabalina, Strandberg, Whiteson, Zielinski, Zitoun, DØ note 4116.

CMS, University of Minnesota:

Californium Irradiation Setup at the University of Minnesota, R. Schwienhorst (2000).

DONUT:

Update to the Fiber Hit Decoding and Clustering Software, R. Schwienhorst (1998).

Theoretica Atomic Physics:

Stokes Parameters for Electron Impact Ionization/Excitation Experiments, R. Schwienhorst (1995).

Conference Presentations

Tevatron Top Physics:

Single Top Physics at the Tevatron, presented at the TeV4LHC workshop, Fermilab, Batavia, Illinois (9/2004).

Search for Single Top Production at the Tevatron, presented at the 5th Rencontres du Vietnam, Hanoi, Vietnam (8/2004).

Top Quark Production at ECM=1.96TeV, presented at the 5th Rencontres du Vietnam, Hanoi, Vietnam (8/2004).

DØ Run II:

The DØ Run II Trigger System, presented at the DPF meeting in Riverside, California (8/2004).

Single Top Interactions at DØ in the Electron Channel, presented at the Phenomenology Symposium 2004 in Madison, Wisconsin (4/2004).

Top Quark Pair Production Cross Section at DØ in the Lepton+Jets Channel, presented at the APS/DPF meeting in Philadelphia (4/2003).

DONUT:

A New Upper Limit for the Tau-Neutrino Magnetic Moment, presented at the New Perspectives conference, Fermilab, Batavia, Illinois (6/2000)

A New Upper Limit for the Tau Neutrino Magnetic Moment, presented at the APS April Meeting in Long Beach, California (4/2000).

MINOS:

The MINOS experiment, presented at the New Perspectives conference, Fermilab, Batavia, Illinois (6/1997)

Seminar Presentations

DØ Run II:

Single Top Physics at DØ, seminar given at Michigan State University, East Lansing, Michigan (4/2004).

DONUT:

Observation of Tau Neutrino Interactions, seminar given at Michigan State University, East Lansing, Michigan (7/2000).

Statistical Analysis of Systematic Errors and small Signals, seminar given at the University of Minnesota (10/1999).

Search for the Tau Neutrino Magnetic Moment, seminar given at Nagoya University, Nagoya, Japan (6/1999).

MINOS:

Search for Neutrino Oscillations – MINOS, seminar given at the University of Minnesota, Minneapolis, Minnesota (4/1998).

Selected Presentations at Fermilab or DØ Internal Plenary-Style Meetings

Search for Single Top Quark Production, given at the Top Group Meeting (7/2004).

Comparison of different W+jets analyses, given at the DØ workshop (6/2004).

Search for Single Top Quark Production, given at the Top Group Meeting (3/2004).

Single Top Workshop Introduction, given at the DØ Single Top Workshop (12/2003).

Physics Update for the EW/Higgs/Top Groups, given at the DØ collaboration meeting (10/2003).

Update on the Single Top Search, given at the Top Group meeting (10/2003).

Top Physics Triggers Update, given at the Top Group meeting (9/2003).

Muon+Jets Triggers at DØ, given at the Trigger Board meeting (9/2003).

Top Physics Triggers Update, given at the Top Group meeting (8/2003).

Trigger Rates in Trigger List version 12, given at the Trigger Board meeting (8/2003).

Second Level 2 Trigger Tutorial for DØ Shifters, given to DØ Shifters (8/2003).

Top Physics Triggers, given at the DØ workshop (6/2003).

Level 2 Certification Efforts, given at the DØ workshop (6/2003).

Top Physics Triggers, given at the Top Group Meeting (5/2003).

Level 2 Trigger Tutorial for DØ Shifters, given to DØ Shifters (4/2003).

Top Triggers at High Luminosity, given at the Trigger Board meeting (3/2003).

Unique and Overall Trigger Rate, given at the Trigger Board meeting (1/2003).

Triggers for Top Quark Physics, given at the DØ Top workshop (12/2002).

Top Trigger Update, given at the Top Group meeting (11/2002).

Top Trigger Requests, given at the Trigger Board meeting (11/2002).

Top Triggers in Trigger List Version 9, given at the Top Group meeting (9/2002).

DAQ Rate Task Force Report, given at the Trigger Board meeting (9/2002).

Top Physics Triggers, given at the Top Group meeting (8/2002).

Level 2 Trigger Monitoring, given to DØ Shifters (5/2002).

DØ Level 2 Trigger Turn-On, given at the Fermilab All-Experimenters meeting (5/2002).

DØ Level 2 Trigger Overview, given at the Trigger Workshop (4/2002).

Level 2 Trigger Turning On, given at the Trigger Board meeting (4/2002).

Level 2 Trigger Online System, given to the DØ Shifters (3/2002).

Level 2 Trigger Commissioning, given at the DØ Commissioning meeting (12/2001).

Level 2 Online Software, given at the DØ collaboration meeting (4/2001).

The ONE TOP MC generator at DØ, given at the Higgs/Top group meeting (4/2001).